

IN THE CLAIMS:

- 1 1. (Previously Presented) A method of operating a switch for frames in a computer net-
2 work, comprising:
3 receiving a frame (the received frame) at a port of said switch, said received
4 frame containing one or more indicia of frame type designation;
5 deriving a virtual local area network (derived VLAN) value in response to said
6 one or more indicia of frame type designation, said derived VLAN internal to said
7 switch;
8 accessing a forwarding data base with said derived VLAN value to determine a
9 destination address; and,
10 forwarding, in response to said derived VLAN value, said received frame to an
11 output port for transmission to the destination.
- 1 2. (Original) The method of claim 1 further comprising, said forwarding step forwarding
2 in response to said derived VLAN value and said destination.
- 1 3. (Original) The method of claim 1 wherein said indicia of frame type designation fur-
2 ther comprises:
3 a protocol type.
- 1 4. (Original) The method of claim 1 wherein said indicia of frame type designation fur-
2 ther comprises:

3 a subnet value.

1 5. (Original) The method of claim 1 wherein said indicia of frame type designation fur-
2 ther comprises:

3 a virtual local area network established in said computer network.

1 6. (Original) The method of claim 1 wherein said indicia of frame type designation fur-
2 ther comprises: an IP source address.

1 7. (Original) The method of claim 1 wherein said indicia of frame type designation fur-
2 ther comprises:

3 an index value associated with a port at which said received frame was received.

1 8. (Original) The method of claim 1 further comprising:

2 deriving a MAC address from said derived VLAN value and forwarding said re-
3 ceived frame to a port for transmission to a destination having said MAC address.

1 9. (Previously Presented) A switch to forward frames in a computer network, compris-
2 ing:

3 a port to receive a frame (the received frame), said received frame containing one
4 or more indicia of frame type designation;

5 a parsing engine to derive a virtual local area network (derived VLAN) value in
6 response to said one or more indicia of frame type designation, said derived VLAN inter-
7 nal to said switch;

8 a forwarding data base having said derived VLAN value as input and a destina-
9 tion address as output; and,

10 an output port to transmit said received frame, in response to said derived VLAN
11 value, for transmission to said destination address.

1 10. (Original) The apparatus as in claim 9 further comprising:

2 a forwarding engine for forwarding said received frame in response to said de-
3 rived VLAN value and said destination address.

1 11. (Previously Presented) A computer readable media containing instructions for the
2 practice of operating a switch for frames in a computer network, comprising:

3 receiving a frame (the received frame) at a port of said switch, said received
4 frame containing one or more indicia of frame type designation;

5 deriving a virtual local area network (derived VLAN) value in response to said
6 one or more indicia of frame type designation, said derived VLAN internal to said
7 switch;

8 accessing a forwarding data base with said derived VLAN value to determine a
9 destination address; and,

10 forwarding, in response to said derived VLAN value, said received frame to an output
11 port for transmission to the destination.

1 12. (Cancelled)

1 13. (Previously Presented) A method of operating a switch for frames in a computer net-
2 work comprising:
3 using one or more indicia of frame type designation found in the a received frame
4 to derive a virtual local area network (derived VLAN) value, said derived VLAN internal
5 to said switch;
6 using the derived VLAN value in making forwarding decisions.

1 14. (Original) The method of claim 13 further comprising:
2 controlling broadcast domains in the computer network by forwarding in response
3 to the derived VLAN value.

1 15. (Previously Presented) The method of claim 13 further comprising:
2 using an indicia of a receiving port in constructing the derived VLAN value.

1 16. (Previously Presented) A computer readable media containing instructions for the
2 practice of operating a switch for frames in a computer network comprising:
3 using one or more indicia of frame type designation found in the received frame
4 to derive a virtual local area network (derived VLAN) value, said derived VLAN internal
5 to said switch;
6 using the derived VLAN value in making forwarding decisions.

1 17. (Cancelled)

1 Please add new claims 18 *et al.*

1 18. (New) A method of operating a switch for frames in a computer network, comprising:
2 receiving a frame (the received frame) at a port of said switch, said received
3 frame containing one or more indicia of frame type designation;
4 deriving a virtual local area network (derived VLAN) value in response to said
5 one or more indicia of frame type designation;
6 accessing a forwarding data base with said derived VLAN value to determine a
7 destination address; and,
8 forwarding, in response to said derived VLAN value, said received frame to an
9 output port for transmission to the destination.

1 19. (New) A switch to forward frames in a computer network, comprising:
2 a port to receive a frame (the received frame), said received frame containing one
3 or more indicia of frame type designation;
4 a parsing engine to derive a virtual local area network (derived VLAN) value in
5 response to said one or more indicia of frame type designation;
6 a forwarding data base having said derived VLAN value as input and a destina-
7 tion address as output; and,
8 an output port to transmit said received frame, in response to said derived VLAN
9 value, for transmission to said destination address.

1 20. (New) An apparatus to forward frames in a computer network, comprising:
2 means for receiving a frame (the received frame) at a port of said switch, said re-
3 ceived frame containing one or more indicia of frame type designation;
4 means for deriving a virtual local area network (derived VLAN) value in response
5 to said one or more indicia of frame type designation;
6 means for accessing a forwarding data base with said derived VLAN value to de-
7 termine a destination address; and,

8 means for forwarding, in response to said derived VLAN value, said received
9 frame to an output port for transmission to the destination.

1 21. (New) A system for sending frames in a computer network, comprising:
2 a plurality of switches to derive a virtual area network (derived VLAN) in re-
3 sponse to one or more indicia of frame type designation; and
4 a plurality of trunking ports to carry the derived VLAN across trunking links.

1 22. (New) A method for sending frames in a computer network, comprising:
2 deriving a virtual area network (derived VLAN) in a plurality of switches, the de-
3 rived VLAN created in response to one or more indicia of frame type designation; and
4 carrying the derived VLAN across trunking links using a plurality of trunking
5 ports.

1 23. (New) An apparatus for sending frames in a computer network, comprising:
2 means for deriving a virtual area network (derived VLAN) in a plurality of
3 switches, the derived VLAN created in response to one or more indicia of frame type des-
4 ignation; and
5 means for carrying the derived VLAN across trunking links.